

M/023/0004
cc: Wayne
Task: 4274



EarthFax

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July 26, 2011

Paul B. Baker
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Subject: Ash Grove Cement Leamington Plant NOI Final Draft

RECEIVED

AUG 01 2011

Dear Paul:

Enclosed are two complete copies of all clean pages and tables, including Appendices, (redline/strikeout removed) of the Notice of Intention to Revise Large Mining Operations for the Ash Grove Cement Company's Hank Allen Pit (Leamington Plant) M/023/004. These pages and tables have been arranged according to the order in which they appear in the Notice of Intention.

Please feel free to contact me at (801) 561-1555 or by email at tjimenez@earthfax.com if there is anything else that you may need or if you have any questions.

Sincerely,

Timothy A. Jimenez
Environmental Engineer
EarthFax Engineering, Inc.

Encl: 2 copies of clean (redline/strikeout removed) of NOI pages and tables

**NOTICE OF INTENTION
TO REVISE LARGE MINING OPERATIONS
LEAMINGTON PLANT AND QUARRY**

PERMIT NO. M/023/004

Submitted To:

**UTAH DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
SALT LAKE CITY, UTAH**

By:

**ASH GROVE CEMENT COMPANY
LEAMINGTON PLANT
P. O. BOX 38069
LEAMINGTON, UTAH 84638-0069**

Submittal Date: June 27, 2000
Revised and Re-submitted February 28, 2001
Revised and Re-submitted August 31, 2001
Revised and Re-submitted March 5, 2007
Revised and Re-submitted July 14, 2008
Revised and Re-submitted February 1, 2010
Revised and Re-submitted March 14, 2011

RECEIVED

AUG 01 2011

DIV. OF OIL, GAS & MINING

NOTICE OF INTENTION TO REVISE MINING OPERATIONS

ASH GROVE CEMENT COMPANY
LEAMINGTON PLANT and QUARRY
JUAB AND MILLARD COUNTIES, UTAH
PERMIT NO. M/023/004

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**NOTICE OF INTENTION TO REVISE MINING OPERATIONS
(December 20, 2010)**

**ASH GROVE CEMENT COMPANY
LEAMINGTON PLANT and QUARRY
JUAB AND MILLARD COUNTIES, UTAH
PERMIT NO. M/023/004**

SUMMARY

Ash Grove Cement Company (the Operator) is pleased to submit this document, entitled "Notice of Intention to Revise Large Mining Operations (Permit No. M/023/004)" (the NOI), for the Leamington Plant to the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining (the Division), for its review and comment. Ash Grove respectfully requests that the Division grant approval for the revisions to the mining operation described in this submittal.

This NOI is submitted in accordance with the Utah Department of Natural Resources, Division of Oil, Gas and Mining, Minerals Reclamation Program, Rules R647-1 through R647-5, which was last revised in 2006 (the Rules). More specifically, this submittal is made in compliance with the requirements of Section R647-4 Large Mining Operations. This submittal is organized and presented in a format which repeats each section of the Rules followed by Ash Groves' response. The submittal includes narrative text in response to the Rules and figures, tables, drawings and maps as required by the Rules and/or to provide additional information to support the responses.

Ash Grove owns lands, located in Juab and Millard Counties, near the town of Leamington, Utah, on which it operates a surface limestone quarry for the production of limestone and shale. The limestone and shale are used as raw products in the manufacture of Portland cement at the Leamington Plant. This NOI provides information, as required by the Division's Rules, to address proposed changes in the mining plans, mining operations and reclamation by Ash Grove at the Leamington Plant and Quarry.

This NOI describes the proposed revisions to the life-of-quarry mining plan, provides a summary of reclamation operations and includes a revised calculation of the estimated reclamation cost. Additionally, the NOI includes various figures, tables, maps and drawings to further explain the revisions to the mining operations.

Millard Counties, Utah" were prepared by Seegmiller International, and are included in Appendices Nos. 15. and No. 16 The reports are include the following information:

- (A) A detailed evaluation of the stability variables including geologic discontinuities, rock mass, shear strength and groundwater; and
- (B) Analysis of the stability of various slope areas for planar, wedge, toppling and rotational shear failure.
- (C) Recommendations for highwall design based on slope stability analyses.

- 8. A report entitled "Cultural Resource Inventory of Leamington Plant Southwest Pit Section 4, Township 15 South, Range 3 West Juab County, Utah", prepared by Christopher T. Jensen of Canyon Environmental, is included in Appendix No. 19. This report is included to provide information on the cultural resources located on the Quarry expansion area. The information in this report includes identification of nearby cultural resources, survey methods, inventory results, and recommendations.

105.3.17 Reclamation activities and treatment map

Response:

A map entitled "Reclamation Activities & Treatment Proposed Area to Be Reclaimed and Revegetated" has been prepared at a scale of 1 inch to 400 feet. This map is included in Appendix No. 8 of this NOI.

The Reclamation Activities and Treatment map shows the aerial extent of the present Quarry and the location of related Quarry facilities, such as the crusher and conveyor. The map also identifies the final dump toe of the waste rock storage area, the Plant "manufacturing area", existing ponds, and roads, etc. Proposed areas to be reclaimed and re-vegetated by the Permittee are also shown on the map.

The operations described in the original mine permit application, which was submitted to the Division in December, 1979, estimated disturbance to be approximately 273 acres as follows:

DESCRIPTION	ORIGINAL PERMIT ACRES
Mfg. & Raw Mtl. Storage	45
Quarry	177

R647-4-106. OPERATION PLAN

106.1 Type of mineral(s) to be mined.

Response:

Limestone and shale will be mined for use as raw kiln feed for the manufacture of Portland cement. The stratigraphic nomenclature and the depositional relationships of these units are shown in Figure 4-106.1-1.

106.2 Type of operations to be conducted, including the mining/processing methods to be used.

Response:

The existing mining operation is an area surface mine operated for the quarrying of rock to be used as a raw material in the manufacture of Portland cement. Mining operations include drilling, blasting, loading broken rock, transportation of rock, crushing rock and rock storage. After being conveyed from the quarry operation, the rock is pulverized and blended with other raw materials to produce kiln feed for the manufacture of Portland cement. All mining operations are conducted by the use of conventional mining equipment, including drills, 100-ton haul trucks, dozers, grader, trackhoe, loaders, feeder breakers, belt conveyors and a stacker/reclaimer. No deleterious materials have been or are anticipated to be encountered during mining. Deleterious materials used as part of operations are handled appropriately, as detailed in Section 107.1.12. The following is a summary of the mining operation to be conducted:

MINE PLAN SUMMARY

The mine plan presented was prepared using all available core drill hole data, as well as chemical analysis from approximately 200 blast holes. Highwall geometries were designed to conform to the recommendations provided by rock slope stability analyses performed for the pit. Slope stability will be monitored after blasting occurs. Additional geotechnical evaluations will be done as warranted. A minimum factor of safety of 1.3 will be maintained for all slopes except as discussed in section 109.4.

The quarry benches are designed to be 60 feet high with a face slope of 87 degrees. The final highwall slope is planned to be 63.4 degrees or 0.5 horizontal to 1.0 vertical when the final pit walls are in L4 and L3 limestones. A final pit slope, including the quarry end-walls, of 45 degrees (1H:1V) will be maintained where

and the subsequent stability analysis for the southwest expansion. This includes slope angles of the quarry highwalls to be 63.4 degrees (0.5H:1V) in limestone and 45 degrees (1H:1V) in S1 and S3 shale. The portions of end walls comprised of S1 & S2 Chisolm Shale in the Northeast Block will have a final pit slope of 2H:1V. S1 and S2 shales will also be graded to 2H:1V where encountered above any limestone highwall. Step-out benches are planned at the 5,800-, 5,500-, and 5,300- foot elevations. The lowest step-out bench is 100 feet lower than what is recommended in the Seegmiller International report, but this bench is not planned for to be completed until at least 2025. The precise location of this lowest step-out bench may be adjusted pending results of future analyses. All pit design changes (if necessary) will be filed with the Division.

As recommended in the highwall stability investigation, the Operator implements blast damage reduction by using a buffer blast zone and minimizes the amount of explosives detonated on a single delay when blasting at the final pit wall face. A heavy chain is also dragged over final faces to dislodge any loose material and reduce the potential for rock falls. Furthermore, 3-foot berms are constructed on the crest of each bench and step-out to contain potential rock falls. This methodology has successfully prevented excessive blasting damage and rock fall problems in current mining operations. Additionally, rock fall simulation performed for the southwest pit expansion area has indicated that rock falls are not expected to create any major safety or stability concerns.

The Operator will use appropriate measures, such as fabric fences, check dams, etc., to control erosion. The Operator presently uses a water truck and a sprinkler system to control fugitive dust emissions from access and haul roads in the Quarry. The facility operates under an approved Title V Operating Permit (#2300015002) issued by the Utah Division of Air Quality.

The Operator limits access to the Plant and Quarry operations for public safety. The Operator has marked the boundary of the Present Disturbance Limit to make it more visible to the public. The operator will also post signs along the perimeter of the Proposed Permit Boundary to advise the public of the Quarry operations. Slope stability will be monitored after blasting occurs. Additional geotechnical evaluations will be done as warranted.

109.5 Proposed mitigation of impacts.

Response:

R647-4-111. RECLAMATION PRACTICES.

During reclamation, the Operator shall conform to the following practices, unless the Division grants a variance in writing.

111.1 Public Safety and Welfare.

The operator shall minimize hazards to the public safety and welfare following completion of operations. Methods to minimize hazards shall include but not be limited to:

111.1.11. The permanent sealing of shafts and tunnels.

Response:

To the best knowledge of the Operator there are no shafts or tunnels on the property being mined. If any tunnels or shafts are encountered, the Operator shall permanently seal them as required by the Division.

111.1.12. The disposal of trash, scrap metal and wood, buildings, extraneous debris, and other materials incident to mining.

Response:

The Operator shall conform to environmentally protective methods for disposal of trash, scrap metal and wood, buildings, extraneous debris, and other materials incident to mining. Non-deleterious materials such as concrete will be placed in Pond #2 and Pond #6 and then covered with soil and revegetated. Materials such as scrap metal will be recycled.

111.1.13. The plugging of drill, core, or other exploratory holes as set forth in Rule R647-4-108.

Response:

The Operator shall plug all drill, core, or other exploratory holes as set forth in Rule R647-4-108.

111.1.14. The posting of appropriate warning signs in locations where public access to operations is readily available.

Response:

The Operator shall post appropriate, legible warning signs in locations where public access to operations is readily available and in the immediate vicinity of reclamation operations.

111.7. Highwalls - In surface mining and in open cuts for pads or roadways, highwalls shall be reclaimed and stabilized by backfilling against them or by cutting the wall back to achieve a slope angle of 45 degrees or less.

Response:

The Operator has previously obtained a variance from the Division to allow highwalls of approximately 63 degrees (0.5H:1V) in limestone in the central area of the Quarry. The Operator is requesting a similar variance in this NOI to allow highwalls of 63 degrees (0.5H:1V) in limestone when mining is extended into the Northeast reserve block and the Southwest expansion area of the Quarry. The Northeast reserve block and the Southwest expansion area are shown on the Proposed Life-Of-Quarry Disturbance Limit Map in Appendix No. 9 of this NOI. When mining in shale the Operator will mine to achieve a highwall slope of 45 degrees (1H:1V) with the exception of S1 and S2 Chisolm Shale which will be graded to 26.6 degrees (2H:1V) where encountered. Additional geotechnical evaluations will be done as warranted. A minimum factor of safety of 1.3 will be maintained for all slopes except as discussed in section 109.4.

111.8. Roads and Pads - On-site roads and pads shall be reclaimed when they are no longer needed for operations. When a road or pad is to be turned over to the property owner or managing agency for continuing use, the operator shall turn over the property with adequate surface drainage structures and in a condition suitable for continued use.

Response:

The Operator shall reclaim all on-site roads and pads, except for two short road segments described below.

One road segment (the North Road), which extends from the north side of Highway 132 approximately 700 feet to the railroad, will not be reclaimed. The North Road will be left in place for use by the Division for post-mining reclamation inspection of the property, use by property owners for access to the Leamington irrigation canal and to private property located north and northeast of property owned by the Operator. The Operator (the property owner) will also use this road for access to their property adjacent to the railroad.

The second road segment (the South Road), which extends from the south side of Highway 132, approximately 0.9 mile to the south

included in the resulting Proposed Life-Of-Quarry Disturbance Limit Map was determined by AutoCAD Map 2000 to increase from 669 acres to 731 acres. The acreage figure of 731 acres was used in determining re-vegetation and reclamation costs.

Note that since most of the pit floor will not be revegetated, an increase in its area can reduce the acreage of reclamation revegetation. The ultimate pit will cover 230 acres, of which 114 acres would be the pit floor. As stated on Section R647-4-110.2, attempts will be made to revegetate 68 acres of the pit floor (Note that the attached surety estimate includes 30 acres of pit floor revegetation, which is the current area of the pit floor. As the pit expands into the Northeast and Southwest Blocks, additional revegetation acreage will be added to the surety estimate). The North and South Access roads and the remaining Chaffin quarries (these areas also will not be revegetated) will cover a total of 4 acres. Thus, the final area of reclamation revegetation is estimated to total 565 acres. The Proposed Life-Of-Quarry Disturbance Limit Map is included in Appendix No. 9 of this NOI.

R.S. Means Heavy Construction Cost Data, 21st Annual Edition (2007) was used to estimate the demolition, haulage, disposal, and re-vegetation costs of the reclaimed lands. However, cost for rock placement for RC-1 and RC-4 came from R.S. Means Heavy Construction Cost Data, 22nd Annual Edition (2008). These cost were reduced to 2007 prices by using the 0.013 rate factor used to calculate inflation. The cost data was escalated to 2012 dollars using escalation factors supplied by the Division. A copy of this spreadsheet entitled "Surety Estimate Using 2007 Construction Cost Data - Ash Grove Cement Company - Leamington Plant and Quarry" is included at the end of this Section of the NOI.

An estimated 731 acres is proposed to be disturbed over the life of the Quarry. The total estimated reclamation surety amount, including a 10% contingency and escalation for five (5) years at 3.20 percent, is \$ 6,766,000. This puts the average cost per disturbed acre at \$ 9,255.

113.4. The operator shall submit a completed Reclamation Contract (FORM MR-RC) with the required surety. The form and amount of the surety must be approved by the Board. Acceptable forms may include:

113.4.11. Corporate surety bond.

113.4.12. Federally-insured certificate of deposit payable to the State of Utah, Division of Oil, Gas and Mining.

Table 4-111-2-1

**ASH GROVE CEMENT COMPANY - LEAMINGTON QUARRY, UTAH
RECLAMATION CHANNEL SUMMARY**

Channel	Bottom Width (ft)	Side Slope (H:V)	Depth (ft)	Design Flow Rate (cfs)	Maximum Channel Capacity (cfs)	Erosion Control Method
RC-1	18	5:1	2.0	328	514.63	9-inch rock*
RC-2	30	5:1	1.0	25	136	None
RC-3	0	3:1	1.5	9.2	32	None
RC-4	20	5:1	1.0	109	241.51	6-inch rock*
SWALE-1	5	10:1	1.5	25	96	None

Notes:

*U.S. Department of Transportation. 1978. Use of Riprap for Bank Protection. Hydrology Engineering Circular No. 11. Federal Highway Administration. Washington D.C.

The design storm event is the 100-year 6-hour storm event, which is 2.1 inches of rain in a 6 hour period.

Table 4-113-3-1			
ASH GROVE CEMENT COMPANY			
LEAMINGTON QUARRY, UTAH			
SURETY SUMMARY			
Direct Costs			
Subtotal Demolition and Removal	2,344,019		
Subtotal Backfilling and Grading	858,064		
Subtotal Revegetation	1,744,084		
Subtotal Direct Costs	4,946,167		
Indirect Costs			
Mob/Demob	494,617	10.0%	
Contingency	247,308	5.0%	
Engineering Redesign	123,654	2.5%	
Main Office Expense	336,339	6.8%	
Project Management Fee	123,654	2.5%	
Subtotal Indirect Costs	1,325,572	26.8%	
Total Cost 2007 Dollars	6,271,739		
Number of years		5	
Escalation factor		0.013	
Escalation	418,401		
Reclamation Cost Escalated	6,690,140		
Bond Amount (rounded to nearest \$1,000) 2012 Dollars	6,690,000		
Posted Bond	4,526,300		
Difference Between Cost Estimate and Bond	-2,163,700		
Percent Difference	-32.3%		

For more detail refer to Appendix No. 18 titled: Surety Estimate

ASH GROVE CEMENT - HANK ALLEN PIT
RECLAMATION WATERSHED PEAK FLOWS
100-YEAR, 6-HOUR STORM EVENT

Watershed	Watershed Area (sq. ft.)	Watershed Area (acres)	Hydraulic Length - L (ft)	Avg watershed slope - Y (%)	Duration of storm (hr)	Curve Number (CN)	Potential Max. Retention - S (in.)	Lag - L (hr)	Time of Concentration - T _c (hr)	Peak Flow (cfs)
RWS-1	35,479,128	814	10,473	52.2	6	81	2.35	0.28	0.47	328
RWS-2	3,636,800	83	4,080	23.5	6	77	2.99	0.22	0.37	25.3
RWS-3	724,800	17	1,440	30.9	6	80	2.50	0.08	0.13	9.2
RWS-4	10,380,800	238	6,960	45.9	6	81	2.35	0.21	0.36	109.1

Notes

Watersheds shown on Reclamation Watershed Map attached

$S = (1000/CN) - 10$

$L = [(I^{0.8} (S+1)^{0.7}) / (1900Y^{0.5})]$

$T_c = 1.67L$

Peak flow calculated with SCSHYDRO Program assuming a 2.1", 6 hr. long rainfall event with a SCS Type "b" Storm Distribution

Reclamation Channel	Steepest Slope (ft/ft)	Flattest Slope (ft/ft)	Side Slope (ft/ft)	Channel Depth (ft)	Bottom Width (ft)	Peak Flow Velocity (fps)	Peak Flow Depth (ft)
RC-1	0.072	0.037	5H:1V	2.0	18	10.16	1.57
RC-2	0.056	0.003	5H:1V	1.0	30	3.98	0.49
RC-3	0.020	0.020	3H:1V	1.5	0	3.92	0.88
RC-4	0.087	0.087	5H:1V	1.0	20	7.41	0.64
Swale	0.050	0.050	10H:1V	1.5	5	19.03	1.09

Notes

Flow velocities and depths calculated with Flowmaster 6.0 Program

Peak velocities were assumed to occur at the location of the steepest channel slope, and peak depths were assumed to occur at the location of the flattest channel slope

Calculations assume a Manning's roughness of 0.03 (smooth vegetated channel) for RC-2 and RC-3, 0.04 (rough rock) for RC-1 and RC-4, and 0.13 (concrete) for the swale.

RC-3, RC-4, and the swale will have constant slopes.

Bonding Calculations

Direct Costs

Subtotal Demolition and Removal	2,344,019
Subtotal Backfilling and Grading	858,064
Subtotal Revegetation	1,744,084
Direct Costs	4,946,167

Indirect Costs

Mob/Demob ^(a)	494,617	10.0%
Contingency	247,308	5.0%
Engineering Redesign	123,654	2.5%
Main Office Expense	336,339	6.8%
Project Management Fee	123,654	2.5%
Subtotal Indirect Costs	1,325,572	26.8%

Total Cost 2007 Dollars	6,271,739
-------------------------	-----------

Number of years	5
Escalation factor	0.013
Escalation	418,401

Reclamation Cost Escalated	6,690,140
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Bond Amount (rounded to nearest \$1,000) 2012 Dollars	6,690,000
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Posted Bond	4,526,300
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Difference Between Cost Estimate and Bond	-2,163,700
Percent Difference	-32.3%

^(a) See attached table, MOB/DEMOB COSTS FOR RECLAMATION EQUIPMENT, for a list of reclamation equipment and an estimate of actual mobilization costs. Ash Grove requests that the estimate in this table be used for mob/demob costs rather than the percentage value given above.

See the following pages for details on reclamation cost estimate:

Demolition: 87 pages
Earthwork: 15 pages
Revegetation: 5 pages

ASH GROVE CEMENT COMPANY - LEAMINGTON QUARRY, UTAH MOB/DEMOB COSTS FOR RECLAMATION EQUIPMENT				
Equipment Type	Quantity	Mob Rate (\$/mi)	RT Distance (mi)	Mob/Demob Cost
Water Truck	1	\$3.50	140	490
D8 Dozer	2	\$6.50	140	1,820
Backhoe, Track Mtd., 3 cyd bucket	2	\$6.25	140	1,750
Backhoe, Track Mtd., 1.5 cyd bucket	2	\$4.50	140	1,260
Haul Truck, 42 cyd cap.	6	\$4.50	140	3,780
Front End Loader, 5 cyd cap.	3	\$4.50	140	1,890
Crane, 150 ton cap., truck mounted	1	\$8.00	140	1,120
Hydromulcher	1	\$5.00	140	700
TOTAL				\$12,810

Mob/Demob ^(a)

Mob/Demob estimates based on August 2007 phone quote from Wheeler Machinery, Lindon, Utah,
No pilot vehicles are required for equipment mobilization.
The mobilization point is Draper, Utah.

Description	Number	Price	Unit
Cutting conveyor belt with circular saw	0154 3340 6100	4.60	\$/day
Cutting PVC septic lines with a circular saw	0154 3340 6100	4.60	\$/day
Cutting up conveyor belt with circular saw	0154 3340 6100	4.60	\$/day
Circular saw rental	0154 3340 6100	4.60	\$/day
Circular saw rental and labor	0154 3340 6100	4.60	\$/day
150 ton cap., truck mounted crane	0154 3360 2760	3027.00	\$/day
Framing demo, concrete, average reinforcing, girders, 14" x 16"	207141400	19.21	L.F.
Site demo, no hauling, pavement removal, bit, 4" to 6" thick	0241 1317 5050	7.15	S.Y.
Site dml, conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.
Site dml, chain link, posts & fabric, 8' to 10' high	0241 1360 1700	3.21	L.F.
Selective demo, chain link gate, 20' wide	0241 1362 0400	143.00	Ea.
Selective demo, chain link fence, 5' tall	0241 1362 0600	1.60	L.F.
demo cast in place pile, 14"-18" end bearing	0241 1374 0700	11.15	L.F.
Build dml, urban, 20 mi haul, no dump fee/fnd, concrete	0241 1613 0050	0.40	C.F.
Explosive/implosive dml, no disposal, steel bldg	0241 1615 0020	0.29	C.F.
Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.
demo concrete, plain, 8" thick, avg reinforcing	0241 1617 2600	15.79	S.F.
Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90.00	Ton
Gutting, building interior, including disposal, commercial bldg, minimum	0241 1921 1000	5.85	SF Flr.
Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.
Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.
Removal of ugn'd stor tk, 6000gal to 8000gal tank	0265 1030 0120	915.00	Ea.
Removal of ugn'd stor tk, 3000gal to 5000gal tank	0265 1030 0300	235.00	Ea.
Removal of ugn'd stor tk, dispose of sludge off-site, avg	0265 1030 0390	5.72	Gal.
Removal of ugn'd stor tk, haul to certified salv dump, 3000gal-5000gal tank	0265 1030 1023	726.00	Ea.
Removal of ugn'd stor tk, haul to certified salv dump, 6000gal-8000gal tank	0265 1030 1026	858.00	Ea.
Removal of ugn'd stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155.00	Ea.
Removal of ugn'd stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155.00	Ea.
Removal of ugn'd stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155.00	Ea.
Removal of ugn'd stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155.00	Ea.
Removal of ugn'd stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155.00	Ea.
Removal of ugn'd stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155.00	Ea.
Hazardous W cln/pu/dspl, liq pickup, vac trk,min charge,4hr,1compt,2200gal	0281 2010 3110	132.00	Hr.
Hazardous W cln/pu/dspl, dumpsite disposal charge, max	0281 2010 6020	484.00	Ton
Electrical demo, transformer, 3 phase to 600v, primary, 750 kVA	2605 0510 1570	1350.00	Ea.
Excavate trench, cont ftg, no sht/dewtrg, 1-4'D,3/8 CY tractor lder/backhoe	3123 1613 0050	7.25	C.Y.
Excavate trench, concrete curb, 6'-10' deep, 3/4 CY hyd backhoe	3123 1613 0500	6.25	C.Y.
Ripping, trap rock, medium hard, 300 HP dozer, adverse conditions	3123 1632 1700	4.00	C.Y.
Ripping, trap rock, very hard, 460 HP dozer, adverse conditions	3123 1632 2100	8.30	C.Y.
Ripping, shale, medium hard, 300 HP dozer, adverse conditions	3123 1632 2500	1.99	C.Y.
Ripping, trap rock, medium hard, 300 HP dozer, adverse conditions	3123 1632 2500	1.99	C.Y.
Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.
Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.
Borrow, Loading, and/or Spreading, FEL whl mtd, 3 cy bucket	3123 23.15 6045	1.35	C.Y.
Hauling, 22 CY rear/bottom dump off-hwy hauler	3123 23.18 2010	2.31	C.Y.
Backfill, structural, 200 H.P., 50' haul, sand & gravel	3123 2314 4000	40.29	C.Y.
Backfill, structural, 200 H.P., 50' haul, common earth	3123 2314 4020	0.78	C.Y.
Fill, spread fill, with dozer 300 h.p 300' haul	3123 2317 0190	3.46	C.Y.
Mix soil & amdt - Fill, spread fill, with dozer 300 h.p 300' haul	3123 2317 0190	3.46	C.Y.
Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.
Hauling, LCY, no loading, 6 c.y dump truck, 2 MI RT, 2.6 lds/hr	3123 2318 0100	7.70	C.Y.
Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.
Hauling, LCY, no loading, 12 c.y dump truck, 20 MI RT, 0.4 lds/hr	3123 2318 0560	24.55	C.Y.
Hauling, LCY, no loading, 16.5 c.y dump trailer, 20 mi RT, .4 lds/hr	3123 2318 1130	15.80	C.Y.
Hauling, LCY, no loading, 20 c.y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2318 1150	2.66	C.Y.
Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.
Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.
Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile
Erosion Control Mat	3125 1310 0120	6.16	S.Y.
Install Erosion Control Mat	3125 1310 0120	0.84	S.Y.
Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.
Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.

Ref.	Structure # & Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	1-6 Truck Silos																			52,829
	7 Large Truck Silo																			20,451
	8 Northern Conveyor																			9,287
	9 Bath House																			9,377
	10 Admin Office																			12,867
	11 Cafeteria																			15,058
	12&13 Field Tile and Septic Tanks																			2,186
	14 Man Tunnel																			2,309
	15 Break Room/Restroom																			2,824
	16 Switch Gear #1																			5,011
	17 Electric Sub Station																			33,000
	18-21 Gas & Diesel Storage																			22,381
	22 Storage																			17,024
	23 Mobil Equipment																			24,509
	24 Waste Oil Storage																			1,815
	25 Lube Storage																			1,320
	26 South Conveyor																			3,784
	27 Raw Materials Truck Dump																			9,723
	28 Storage																			375
	29 Raw Materials Silos (Qty 5)																			9,513
	30 Warehouse																			11,496
	31 Maintenance Shop																			41,182
	32 Bag House																			11,141
	33 Water Tank																			2,250
	34 Supply Storage Yard																			43,639
	35 Diesel Storage																			9,460
	36 Storage Buildings																			474
	37 & 38 Blend Silos																			12,154
	39 Lube and Hyd Oil Storage																			410
	40 Raw Mill																			19,470
	41 Switch Gear #4																			13,029
	42 Finish Mill																			23,520
	43 Preheat Tower																			23,028
	44 Alkali Bag House																			2,063
	45 Storage																			700
	46 Pipeline																			88
	47 Stack																			405
	48 Coal Silo																			7,764
	49 Kln Scanner Building																			84
	50 Coal Truck Dump																			15,188
	51 Control Room & Lab																			44,072
	52 Switch Gear #7																			7,714
	53 Burner Floor																			5,278
	54 Heat Exchanger																			2,903
	55 Bag House																			2,780
	56 Power Wash Room																			523
	57 Water Treatment (Glyco Cooler)																			1,609
	58 Gypsum Silo																			1,886
	59 & 60 Clinker Silos																			28,752
	61 Truck Scale																			8,251
	62 Scale House																			37
	63 Clinker Storage																			12,908
	64 Water Supply Well																			523
	65 First Aid Room																			4,906
	66 Instrument Shop																			382
	67 Stack																			928
	68 Stack																			465
	69 Kln																			1,733
	70 Off-Spec Clinker Silo																			2,514
	71 Clinker Elevator																			677
	72 Glyco Dist. Building																			1,878
	73 Tunnel Clinker Silos																			65,279
	74 Clinker Conveyor																			1,316
	75 Western Bridge Over Canal																			23,320
	76 Process Duct																			4,205
	77 Cement Dist. Point to Silos																			1,316
	100 Switch Gear #2																			2,666
	101 Crusher																			19,661
	102 Lunch Room																			2,345
	103 Pump House																			125
	104 Water Tank																			370
	105 Diesel Fuel Tank																			2,564
	106 C-111 Cover																			1,249
	107 Switch Gear #3																			2,431
	108 B-8 Overland Belt																			10,007
	109 Hopper																			174
	110 Transfer Tower																			8,937
	111 Stacker Reclaimer																			116,630
	112 Cap Magazine																			21
	114 Detonator Magazine																			74
	115 Anfo Bin																			104
	Removal of Chain Link Fences and Gates																			8,686
	Demolition of Concrete & Asphalt Roadways and Flatwork in Process Area																			1,039,252
	North Access Road																			104,241
	South Access Road																			307,421
	SUBTOTAL DEMOLITION																			2,344,019

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	1-6 Truck Silos																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						37,800					C.F.		37,800	C.F.	10,962
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			10,962
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						553					C.Y.		553	C.Y.	33,595
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 165 CY/hr	3123 1642 1650	0.99	C.Y.						522					C.Y.		1,922	C.Y.	1,903
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 Mi RT, 1.7 lds/hr	3123 2316 1220	3.92	C.Y.						522					C.Y.		1,615	C.Y.	6,331
	Disposal Costs																			
1	Backfill	Backfill, structural, 200 H.P., 50' haul, common earth	3123 2314 4020	0.78	C.Y.						50					C.Y.		50	C.Y.	39
	Subtotal																			41,867
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			552,829

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	7 Large Truck Silo																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dmi. no disposal, conc bldg	0241 1615 0100	0.29	C.F.						17.880					C.F.		17.880	C.F.	5.185
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			5.185
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dmi, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						183					C.Y.		183	C.Y.	11.117
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						845					C.Y.		845	C.Y.	837
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						845					C.Y.		845	C.Y.	3.312
	Disposal Costs																			
	Subtotal																			15.266
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$20,451

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	8 Northern Conveyor																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dmi, no disposal, steel bldg	0241 1615 0020	0.29	C.F.						3,247					C.F.		3,247	C.F.	942
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			942
	Equipment's Disposal Cost																			
1	Dismantling Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	497										L.F.		497	L.F.	601
1	Dismantling Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	3,364										L.F.		3,364	L.F.	4,070
1	Dismantling Cost	Cutting conveyor belt with circular saw	0154 3340 6100	4.60	\$/day									5		\$/day		5	\$/day	23
	Equipment's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						1,018					C.Y.		1,018	C.Y.	926
1	Transport Costs	Hauling, LCY, no loading, 16.5 c.y dump trailer, 20 mi RT., 4 lds/hr	3123 2318 1130	15.80	C.Y.						53					C.Y.		53	C.Y.	837
1	Additional Transport Costs	Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile	66										Mile		66	Mile	87
	Disposal Costs	Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90.00	Ton							20				Ton		20	Ton	1,800
	Subtotal																			8,346
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$9,287

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	9 Bath House																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						33.600					C.F.		4,200	C.F.	1,302
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,302
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	Site dml, conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.					467						S.Y.		467	S.Y.	7,005
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1850	0.99	C.Y.						218					C.Y.		218	C.Y.	216
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						218					C.Y.		218	C.Y.	855
	Disposal Costs																			
	Subtotal																			8,075
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$9,377

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	10 Admin Office																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml. no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						46,400					C.F.		5,800	C.F.	1,798
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,798
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	Site dml. conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.					644						S.Y.		644	S.Y.	9,660
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						287					C.Y.		287	C.Y.	284
1	Transportation Cost	Hauling, LCY, no loading, 20 c.v dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						287					C.Y.		287	C.Y.	1,125
	Disposal Costs																			
	Subtotal																			11,069
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$12,867

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	11 Cafeteria																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal. Mixed types bldg	0241 1613 0100	0.31	C.F.						28.416					C.F.		28.416	C.F.	8,809
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			8,809
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	Site dml, conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.					395						S.Y.		395	S.Y.	5,925
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						66					C.Y.		66	C.Y.	65
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						66					C.Y.		66	C.Y.	259
	Disposal Costs																			
	Subtotal																			6,249
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$15,058

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	12&13 Field Tile and Septic Tanks																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment 's Disposal Cost																			
1	Dismantling Cost	Cutting PVC septic lines with a circular saw	0154 3340 6100	5	\$/day									5		\$/day		5	\$/day	23
1	Dismantling Cost	Excavate trench, concrete curb, 6'-10' deep, 3/4 CY hyd backhoe	3123 1613 0500	6.25	C.Y.						175					C.Y.		175	C.Y.	1,094
	Equipment 's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	1	C.Y.						36					C.Y.		36	C.Y.	36
1	Transport Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						24					C.Y.		24	C.Y.	94
1	Transport Cost	Hauling, LCY, no loading, 12 c y dump truck, 20 MI RT, 0.4 lds/hr	3123 2318 0560	24.55	C.Y.						12					C.Y.		12	C.Y.	295
1	Additional Transport Cost	Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile	24										Mile		24	Mile	32
1	Disposal Costs	Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90.00	Ton							2				Ton		2	Ton	180
1	Backfill	Backfill, structural, 200 H.P., 50' haul, common earth	3123 2314 4020	0.78	C.Y.						555					C.Y.		555	C.Y.	433
	Subtotal																			2,186
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,186

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	14 Man Tunnel																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dmi. no disposal, conc bldg	0241 1615 0100	0.29	C.F.						7,100					C.F.		7,100	C.F.	2,059
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
1	Backfill	Backfill, structural, 200 H.P., 50' haul common earth	3123 2314 4020	0.78	C.Y.						320					C.Y.		320	C.Y.	250
	Subtotal																			2,309
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,309

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	15 Break Room/Restroom																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml. no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						5,200					C.F.		6,000	C.F.	1,860
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,860
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	Site dml. conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.					44						S.Y.		44	S.Y.	660
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 C.Y cap = 185 C.Y/hr	3123 1642 1650	0.99	C.Y.						62					C.Y.		62	C.Y.	61
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						62					C.Y.		62	C.Y.	243
	Disposal Costs																			
	Subtotal																			964
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,824

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	16 Switch Gear #1																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						13,104					C.F.		13,104	C.F.	4,062
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4,062
	Equipment's Disposal Cost																			
1	Dismantling Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	295										L.F.		295	L.F.	357
	Equipment's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						102					C.Y.		102	C.Y.	101
1	Transport Costs	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						102					C.Y.		102	C.Y.	491
	Disposal Costs																			
	Subtotal																			949
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$5,011

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
17 Electric Sub Station																				
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Site dml. chain link, posts & fabric, 8' to 10' high	0241 1360 1700	3.21	L.F.	612										L.F.		612	L.F.	1,965
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Loading Cost Steel	Excavating, bulk bank measure. FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						5					C.Y.		5	C.Y.	5
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						5					C.Y.		5	C.Y.	24
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,994
1	Equipment's Disposal Cost	Hazardous W ch/pu/ds/pl, dumpsite disposal charge, max	0281 2010 6020	484	Ton							0.25				Ton		0.25	Ton	121
1	Dismantling Cost	Electrical demo, transformer, 3 phase to 600v, primary, 750 kVA	2605 0510 1570	1350	Ea											Ea		6	Ea	8,100
1	Dismantling Cost	Hazardous W ch/pu/ds/pl, liq pickup, vac trk, min charge, 4hr, 1compt, 2200gal	0281 2010 3110	132	Hr									4		Hr		4	Hr	528
1	Dismantling Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	162										L.F.		162	L.F.	196
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			8,945
2	Concrete Demolition	Site dml. conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						336					C.Y.		336	C.Y.	20,412
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure. FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						336					C.Y.		336	C.Y.	333
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						336					C.Y.		336	C.Y.	1,317
	Disposal Costs																			
	Subtotal																			22,062
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$33,000

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	18-21 Gas & Diesel Storage																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
1	Dismantling Cost	Removal of ugnd stor tk, 6000gal to 8000gal tank	0265 1030 0120	915	Ea										2	Ea.		2	Ea	1,830
	Equipment's Vol. Demolished																			
	Loading Costs																			
1	Transport Costs	Removal of ugnd stor tk, haul to certified salv dump, 6000gal-8000gal tank	0265 1030 1026	858	Ea										2	Ea		2	Ea	1,716
1	Disposal Costs	Removal of ugnd stor tk, dispose of sludge off-site, avg	0265 1030 0390	5.72	Gal.						100					Gal.		100	Gal.	572
	Subtotal																			4,118
	Equipment's Disposal Cost																			
1	Dismantling Cost	Removal of ugnd stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155.00	Ea										4	Ea.		4	Ea	4,620
	Equipment's Vol. Demolished																			
	Loading Costs																			
1	Transport Costs	Removal of ugnd stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155.00	Ea										4	Ea.		4	Ea	4,620
1	Disposal Costs	Removal of ugnd stor tk, dispose of sludge off-site, avg	0265 1030 0390	5.72	Gal.						200					Gal.		200	Gal.	1,144
	Subtotal																			10,384
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						120					C.Y.		120	C.Y.	7,290
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						120					C.Y.		120	C.Y.	119
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						120					C.Y.		120	C.Y.	470
	Disposal Costs																			
	Subtotal																			7,879
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$22,381

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	22 Storage																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,120										L.F.		1,120	L.F.	1,355
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						143					C.Y.		143	C.Y.	688
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,043
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						226					C.Y.		226	C.Y.	13,730
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						369					C.Y.		369	C.Y.	365
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						226					C.Y.		226	C.Y.	886
	Disposal Costs																			
	Subtotal																			14,981
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$17,024

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	23 Mobil Equipment																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Gutting, building interior, including disposal, commercial bldg, minimum	0241 1921 1000	5.85	SF Flr.					3,000						SF Flr.		3,000	SF Flr.	17,550
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						147					C.Y.		147	C.Y.	707
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			18,257
	Equipment's Disposal Cost																			
	Dismantling Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1	L.F.	488										L.F.		488	L.F.	590
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			590
	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						84					C.Y.		84	C.Y.	5,103
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						231					C.Y.		231	C.Y.	229
	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						84					C.Y.		84	C.Y.	329
	Disposal Costs																			
	Subtotal																			5,661
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$24,509

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	24 Waste Oil Storage																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
1	Dismantling Cost	Removal of ugnd stor tk, 3000gal to 5000gal tank	0265 1030 0300	235	Ea.										1	Ea.		1	Ea.	235
	Equipment's Vol. Demolished																			
	Loading Costs																			
1	Transport Costs	Removal of ugnd stor tk, haul to certified saly dump, 3000gal-5000gal tank	0265 1030 1023	726	Ea.										1	Ea.		1	Ea.	726
1	Disposal Costs	Removal of ugnd stor tk, dispose of sludge off-site, avg	0265 1030 0390	5.72	Gal.						50					Gal.		50	Gal.	286
	Subtotal																			1,247
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						5.6					C.Y.		5.6	C.Y.	340
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						5.6					C.Y.		5.6	C.Y.	6
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						5.6					C.Y.		5.6	C.Y.	22
	Disposal Costs																			
	Subtotal																			368
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,615

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	25 Lube Storage																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	235										L.F.		235	L.F.	284
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Steel Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						54					C.Y.		54	C.Y.	53
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						54					C.Y.		54	C.Y.	260
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			598
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						11					C.Y.		11	C.Y.	668
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						11					C.Y.		11	C.Y.	11
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						11					C.Y.		11	C.Y.	43
	Disposal Costs																			
	Subtotal																			722
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,320

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	26 South Conveyor																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	113										L.F.		113	L.F.	137
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, steel bldg	0241 1615 0020	0.29	C.F.						131					C.F.		131	C.F.	38
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
1	Transportation Cost Non Steel	Hauling, LCY, no loading, 16.5 c.y dump trailer, 20 mi RT, 4 lds/hr	3123 2318 1130	15.8	C.Y.						53					C.Y.		53	C.Y.	837
1	Additional Transportation Cost Non Steel	Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile	66										Mile		66	Mile	87
	Transportation Cost Non Steel Drive																			
1	Disposal Cost Non Steel	Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90	Ton							12				Ton		12	Ton	1,080
	Steel's Weight																			
	Truck's Capacity																			
1	Steel Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						175					C.Y.		175	C.Y.	159
1	Transportation Cost Steel	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						175					C.Y.		175	C.Y.	842
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3,180
	Equipment's Disposal Cost																			
1	Dismantling Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	L.F.										L.F.		480	L.F.	581
1	Dismantling Cost	Cutting up conveyor belt with circular saw	0154 3340 6100	5	\$/day									5		\$/day		5	\$/day	23
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			604
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$3,784

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	27 Raw Materials Truck Dump																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc. 7" to 24" thick plain	See Note 2	60.75	C.Y.						143					C.Y.		143	C.Y.	8,657
1	Backfill Cost	Fill, spread fill, with dozer 300 n.p. 300' haul	3123 2317 0190	3.46	C.Y.						308					C.Y.		308	C.Y.	1,066
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			9,723
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$9,723

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	28 Storage																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	50										L.F.		50	L.F.	61
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Steel Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						17					C.Y.		17	C.Y.	17
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						17					C.Y.		17	C.Y.	82
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			159
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						3.5					C.Y.		3.5	C.Y.	213
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						3.5					C.Y.		3.5	C.Y.	3
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			216
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$375

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	29 Raw Materials Silos (Qty 5)																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						4,508					C.F.		4,508	C.F.	1,307
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	74										L.F.		74	L.F.	90
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Non Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						167					C.Y.		167	C.Y.	165
1	Transportation Cost Non Steel Truck	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						167					C.Y.		167	C.Y.	655
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1.3					C.Y.		1.3	C.Y.	1
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 8 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						1.3					C.Y.		1.3	C.Y.	6
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,224
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						111					C.Y.		111	C.Y.	6,743
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						111					C.Y.		111	C.Y.	110
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						111					C.Y.		111	C.Y.	435
	Disposal Costs																			
	Subtotal																			7,288
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$9,513

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	30 Warehouse																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	975										L.F.		975	L.F.	1,180
1	Structure's Demolition Cost	Gutting, building interior, including disposal, commercial bldg, minimum	0241 1921 1000	5.85	SF Flr.					5,840						SF Flr.		5,840	SF Flr.	34,164
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						250					C.Y.		250	C.Y.	248
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						250					C.Y.		250	C.Y.	1,203
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,450
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						153					C.Y.		153	C.Y.	9,295
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						153					C.Y.		153	C.Y.	151
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						153					C.Y.		153	C.Y.	600
	Disposal Costs																			
	Subtotal																			10,046
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$11,496

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	31 Maintenance Shop																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	925										L.F.		925	L.F.	1,119
1	Structure's Demolition Cost	Gutting, building interior, including disposal, commercial bldg, minimum	0241 1921 1000	5.85	SF Fir					5,110						SF Fir		5,110	SF Fir	29,894
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						225					C.Y.		225	C.Y.	223
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						225					C.Y.		225	C.Y.	1,082
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			32,318
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						135					C.Y.		135	C.Y.	8,201
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						135					C.Y.		135	C.Y.	134
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						135					C.Y.		135	C.Y.	529
	Disposal Costs																			
	Subtotal																			8,864
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$41,182

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	32 Bag House																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	4,596										L.F.		4,596	L.F.	5,561
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 165 CY/hr	3123 1642 1650	0.99	C.Y.						962					C.Y.		962	C.Y.	952
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						962					C.Y.		962	C.Y.	4,627
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			11,141
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$11,141

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	33 Water Tank																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	629										L.F.		629	L.F.	761
1	Structure's Demolition Cost	Excavate trench, cont ftg, no sht/dewtrg, 1-4 D, 3/8 CY tractor lder/backhoe	3123 1613 0050	7.25	C.Y.						189					C.Y.		189	C.Y.	1,370
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						13.6					C.Y.		13.6	C.Y.	13
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 2 MI RT, 2.6 lds/hr	3123 2318 0100	7.7	C.Y.						13.6					C.Y.		13.6	C.Y.	105
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,250
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,250

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	34 Supply Storage Yard																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment % Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						396					C.Y.		396	C.Y.	24,057
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						396					C.Y.		396	C.Y.	392
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						396					C.Y.		396	C.Y.	1,552
1	Backfill Cost	Backfill, structural, 200 H.P., 50' haul, common earth	3123 2314 4020	0.78	C.Y.						1,100					C.Y.		1,100	C.Y.	858
	Disposal Costs																			
	Subtotal																			26,859
1	Concrete Demolition	Site demo, no hauling, pavement removal, bit, 4" to 6" thick	0241 1317 5050	7.15	S.Y.					1,689						S.Y.		1,689	S.Y.	12,076
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						151					C.Y.		151	C.Y.	149
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2318 1150	2.66	C.Y.						151					C.Y.		151	C.Y.	402
1	Ripping Cost	Ripping, trap rock, medium hard, 300 HP dozer, adverse conditions	3123 1632 1700	4.00	C.Y.						1,038					C.Y.		1,038	C.Y.	4,152
	Disposal Costs																			
	Subtotal																			16,780
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$43,639

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	35 Diesel Storage																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
1	Dismantling Cost	Removal of ugend stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155	Ea										2	Ea		2	Ea	2,310
	Equipment's Vol. Demolished																			
	Loading Costs																			
1	Transport Costs	Removal of ugend stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155	Ea										2	Ea		2	Ea	2,310
1	Disposal Costs	Removal of ugend stor tk, dispose of sludge off-site, avg	0265 1030 0390	5.72	Gal						100					Gal		100	Gal	572
	Subtotal																			5,192
2	Concrete Demolition	Site dml. conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						65					C.Y.		65	C.Y.	3,949
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1850	0.99	C.Y.						65					C.Y.		65	C.Y.	64
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						65					C.Y.		65	C.Y.	255
	Disposal Costs																			
	Subtotal																			4,268
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$9,460

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	36 Storage Buildings																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	114										L.F.		114	L.F.	138
	Structure's Vol. Demolished																			
	Rubble's Weight (exclue steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						58					C.Y.		58	C.Y.	57
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						58					C.Y.		58	C.Y.	279
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			474
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$474

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	37 & 38 Blend Silos																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						25,758					C.F.		25,758	C.F.	7,470
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			7,470
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						954					C.Y.		954	C.Y.	944
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						954					C.Y.		954	C.Y.	3,740
	Disposal Costs																			
	Subtotal																			4,684
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$12,154

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swel Factor	Quantity	Unit	Cost
	39 Lube and Hyd Oil Storage																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	142										L.F.		142	L.F.	172
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						41					C.Y.		41	C.Y.	41
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						41					C.Y.		41	C.Y.	197
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			410
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$410

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	40 Raw Mill																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,714										L.F.		1,714	L.F.	2,074
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						339					C.Y.		339	C.Y.	336
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						339					C.Y.		339	C.Y.	1,631
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4,040
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						235					C.Y.		235	C.Y.	14,276
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						235					C.Y.		235	C.Y.	233
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						235					C.Y.		235	C.Y.	921
	Disposal Costs																			
	Subtotal																			15,430
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$19,470

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	41 Switch Gear #4																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						40,320					C.F.		40,320	C.F.	12,499
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			12,499
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						108					C.Y.		108	C.Y.	107
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 Mi RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						108					C.Y.		108	C.Y.	423
	Disposal Costs																			
	Subtotal																			530
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$13,029

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	42 Finish Mill																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	5,580										L.F.		5,580	L.F.	6,752
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1,091					C.Y.		1,091	C.Y.	1,080
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						1,091					C.Y.		1,091	C.Y.	5,248
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			13,080
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						159					C.Y.		159	C.Y.	9,659
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						159					C.Y.		159	C.Y.	167
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						159					C.Y.		159	C.Y.	623
	Disposal Costs																			
	Subtotal																			10,440
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$23,520

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	43 Preheat Tower																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	7,877										L.F.		7,877	L.F.	9,531
	Structure's Vol. Demolished																			
	Rubble's Weight (excl. steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						2,327					C.Y.		2,327	C.Y.	2,304
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						2,327					C.Y.		2,327	C.Y.	11,193
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			23,028
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$23,028

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	44 Alkali Bag House																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,087										L.F.		1,087	L.F.	1,315
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						129					C.Y.		129	C.Y.	128
	Haulage																			
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						129					C.Y.		129	C.Y.	620
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,063
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,063

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	45 Storage																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						648					C.F.		648	C.F.	188
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			188
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						6					C.Y.		6	C.Y.	365
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						30					C.Y.		30	C.Y.	30
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						30					C.Y.		30	C.Y.	118
	Disposal Costs																			
	Subtotal																			512
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$700

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	46 Pipeline																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	3										L.F.		3	L.F.	4
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1					C.Y.		1	C.Y.	1
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						1					C.Y.		1	C.Y.	5
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			9
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc. 7" to 24" thick, plain	See Note 2	60.75	C.Y.						1.2					C.Y.		1.2	C.Y.	73
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1.2					C.Y.		1.2	C.Y.	1
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						1.2					C.Y.		1.2	C.Y.	5
	Disposal Costs																			
	Subtotal																			79
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$88

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	47 Stack																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	301										L.F.		301	L.F.	364
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						7					C.Y.		7	C.Y.	7
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						7					C.Y.		7	C.Y.	34
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			405
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$405

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	48 Coal Silo																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						11,583					C.F.		11,583	C.F.	3,359
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			3,359
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						35					C.Y.		35	C.Y.	2,126
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						464					C.Y.		464	C.Y.	459
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 ids/hr	3123 2318 1220	3.92	C.Y.						464					C.Y.		464	C.Y.	1,819
	Disposal Costs																			
	Subtotal																			4,404
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$7,764

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	49 Kiln Scanner Building																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	24										L.F.		24	L.F.	29
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						9.5					C.Y.		9.5	C.Y.	9
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						9.5					C.Y.		9.5	C.Y.	46
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			84
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			84

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	50 Coal Truck Dump																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc. 7" to 24" thick, plain	See Note 2	60.75	C.Y.						250					C.Y.		250	C.Y.	15,188
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			15,188
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$15,188

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2006 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	51 Control Room & Lab																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						80,000					C.F.		80,000	C.F.	24,800
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			24,800
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	Site dml, conc to 6" thick, rod reinforced	0241 1317 5300	15.00	S.Y.					1,111						S.Y.		1,111	S.Y.	16,665
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						531					C.Y.		531	C.Y.	526
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						531					C.Y.		531	C.Y.	2,082
	Disposal Costs																			
	Subtotal																			19,272
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$44,072

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) 2008 RSMeans Building Construction Cost Data, 86th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	52 Switch Gear #7																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						9,600					C.F.		9,600	C.F.	2,976
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,976
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						67					C.Y.		67	C.Y.	4,070
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						136					C.Y.		136	C.Y.	135
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						136					C.Y.		136	C.Y.	533
	Disposal Costs																			
	Subtotal																			4,738
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			7,714

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	53 Burner Floor																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						1,863					C.F.		1,863	C.F.	540
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			540
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						67					C.Y.		67	C.Y.	4,070
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						136					C.Y.		136	C.Y.	135
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						136					C.Y.		136	C.Y.	533
	Disposal Costs																			
	Subtotal																			4,738
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			5,278

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	54 Heat Exchanger																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,292										L.F.		1,292	L.F.	1,563
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						231.0					C.Y.		231	C.Y.	229
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						231.0					C.Y.		231	C.Y.	1,111
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,903
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,903

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	55 Bag House																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,423										L.F.		1,423	L.F.	1,722
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						179					C.Y.		179	C.Y.	177
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 5 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						179					C.Y.		179	C.Y.	861
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			2,760
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,760

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	56 Power Wash Room																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	4										L.F.		4	L.F.	5
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4.5					C.Y.		4.5	C.Y.	4
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.v dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						4.5					C.Y.		4.5	C.Y.	22
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			31
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						7.5					C.Y.		7.5	C.Y.	456
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						7.5					C.Y.		7.5	C.Y.	7
1	Transportation Cost	Hauling, LCY, no loading, 20 c.v dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						7.5					C.Y.		7.5	C.Y.	29
	Disposal Costs																			
	Subtotal																			492
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$523

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	57 Water Treatment (Glyco Cooler)																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	265										L.F.		265	L.F.	321
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						41					C.Y.		41	C.Y.	41
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						41					C.Y.		41	C.Y.	197
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			558
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc. 7" to 24" thick, plain	See Note 2	60.75	C.Y.						16					C.Y.		16	C.Y.	972
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						16					C.Y.		16	C.Y.	16
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						16					C.Y.		16	C.Y.	63
	Disposal Costs																			
	Subtotal																			1,051
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,609

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	58 Gypsum Silo																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dmi, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						3,996					C.F.		3,996	C.F.	1,159
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,159
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						148					C.Y.		148	C.Y.	147
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 Mi RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						148					C.Y.		148	C.Y.	580
	Disposal Costs																			
	Subtotal																			727
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,886

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	59 & 60 Clinker Silos																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	1,455										L.F.		1,455	L.F.	1,761
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						56,268					C.F.		56,268	C.F.	16,318
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						76					C.Y.		76	C.Y.	75
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 8 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						76					C.Y.		76	C.Y.	366
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			18,519
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						2,084					C.Y.		2,084	C.Y.	2,063
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						2,084					C.Y.		2,084	C.Y.	8,169
	Disposal Costs																			
	Subtotal																			10,232
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$28,752

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
61 Truck Scale																				
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	72										L.F.		72	L.F.	87
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4					C.Y.		4	C.Y.	4
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 8 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						4					C.Y.		4	C.Y.	19
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			110
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						134					C.Y.		134	C.Y.	8,141
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			8,141
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$8,251

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	62 Scale House																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	2										L.F.		2	L.F.	2
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						0.7					C.Y.		0.7	C.Y.	1
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 8 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						0.7					C.Y.		0.7	C.Y.	3
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			6
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc. 7" to 24" thick, plain	See Note 2	60.75	C.Y.						0.5					C.Y.		0.5	C.Y.	30
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			30
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$37

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	63 Clinker Storage																			
	Deduct 50% no interior walls																			
1	Structure's Ripping Cost	Ripping, trap rock, medium hard, 300 HP dozer, adverse conditions	3123 1632 1700	4.00	C.Y.						3.227					C.Y.		3.227	C.Y.	12,908
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			12,908
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			12,908

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	64 Water Supply Well																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	4										L.F.		4	L.F.	5
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4.5					C.Y.		4.5	C.Y.	4
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						4.5					C.Y.		4.5	C.Y.	22
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			31
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc. 7" to 24" thick, plain	See Note 2	60.75	C.Y.						7.5					C.Y.		7.5	C.Y.	456
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						7.5					C.Y.		7.5	C.Y.	7
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						7.5					C.Y.		7.5	C.Y.	29
	Disposal Costs																			
	Subtotal																			492
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$523

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	65 First Aid Room																			
	Deduct 50% no interior walls																			
2	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						14,700					C.F.		14,700	C.F.	4,557
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Loading Cost Steel																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4,557
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						71					C.Y.		71	C.Y.	70
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						71					C.Y.		71	C.Y.	278
	Disposal Costs																			
	Subtotal																			349
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$4,906

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	66 Instrument Shop																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Explosive/implosive dm, no disposal, conc bldg	0241 1615 0100	0.29	C.F.	810										C.F.		810	C.F.	235
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Loading Cost Steel																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			235
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						30					C.Y.		30	C.Y.	30
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						30					C.Y.		30	C.Y.	118
	Disposal Costs																			
	Subtotal																			147
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$382

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	67 Stack																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	694										L.F.		694	L.F.	840
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 6 CY cap = 165 CY/hr	3123 1642 1650	0.99	C.Y.						15.2					C.Y.		15.2	C.Y.	15
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						15.2					C.Y.		15.2	C.Y.	73
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			928
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			928

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	68 Stack																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	301										L.F.		301	L.F.	364
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						7					C.Y.		7	C.Y.	7
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						7					C.Y.		7	C.Y.	34
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			405
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$405

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	69 Kiln																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	991										L.F.		991	L.F.	1,199
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 C.Y cap = 185 C.Y/hr	3123 1642 1650	0.99	C.Y.						92					C.Y.		92	C.Y.	91
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						92					C.Y.		92	C.Y.	443
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,733
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,733

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	70 Off-Spec Clinker Silo																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	613										L.F.		613	L.F.	742
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						16					C.Y.		16	C.Y.	16
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						16					C.Y.		16	C.Y.	77
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			835
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						342					C.Y.		342	C.Y.	339
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						342					C.Y.		342	C.Y.	1,341
	Disposal Costs																			
	Subtotal																			1,679
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,514

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	71 Clinker Elevator																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	334										L.F.		334	L.F.	404
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						47					C.Y.		47	C.Y.	47
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						47					C.Y.		47	C.Y.	226
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			677
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$677

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	72 Glycol Dist. Building																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	150										L.F.		150	L.F.	182
	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.							1,080				C.F.		1,080	C.F.	313
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck	Hauling, LCY, no loading, 12 c.y dump truck, 20 MI RT, 0.4 lds/hr	3123 2318 0560	24.55	C.Y.						2					C.Y.		2	C.Y.	49
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						15					C.Y.		15	C.Y.	15
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						15					C.Y.		15	C.Y.	72
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			631
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						16					C.Y.		16	C.Y.	972
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						56					C.Y.		56	C.Y.	55
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						56					C.Y.		56	C.Y.	220
	Disposal Costs																			
	Subtotal																			1,247
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,878

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	73 Tunnel Clinker Silos																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						336					C.Y.		336	C.Y.	20,436
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
1	Backfill	Backfill, structural, 200 H.P., 50' haul, sand & gravel	3123 2314 4000	40.29	C.Y.						1,113					C.Y.		1,113	C.Y.	44,843
	Subtotal																			65,279
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			0
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$65,279

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	74 Clinker Conveyor																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	883										L.F.		883	L.F.	1,068
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						43					C.Y.		43	C.Y.	42
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						43					C.Y.		43	C.Y.	205
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,316
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,316

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	75 Western Bridge Over Canal																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
1	Concrete Demolition	demo concrete, plain, 8" thick, avg reinforcing	0241 1617 2600	15.79	S.F.					1,350						S.F.		1,350	S.F.	21,317
1	Demolition Cost	demo cast in place pile, 14"-16" end bearing	0241 1374 0700	11.15	L.F.	60										L.F.		60	L.F.	669
1	Demolition Cost	Framing demo, concrete, average reinforcing, girders, 14" x 16"	207141400	19.21	L.F.	60										L.F.		60	L.F.	1,153
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						37					C.Y.		37	C.Y.	37
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						37					C.Y.		37	C.Y.	145
	Disposal Costs																			
	Subtotal																			23,320
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$23,320

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	76 Process Duct																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	2,267										L.F.		2,267	L.F.	2,743
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						252					C.Y.		252	C.Y.	249
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						252					C.Y.		252	C.Y.	1,212
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			4,205
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$4,205

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	77 Cement Dist. Point to Silos																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep. steel to 1/2" thick	0241 1927 0020	1.21	L.F.	883										L.F.		883	L.F.	1,068
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						43					C.Y.		43	C.Y.	42
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.						43					C.Y.		43	C.Y.	205
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,316
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,316

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	100 Switch Gear #2																			
	Deduct 50% no interior walls																			
3	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						5,616					C.F.		5,616	C.F.	1,741
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,741
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						13					C.Y.		13	C.Y.	790
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						51					C.Y.		51	C.Y.	50
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						51					C.Y.		51	C.Y.	85
	Disposal Costs																			
	Subtotal																			925
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,666

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT.

(3) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	101 Crusher																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	209										L.F.		209	L.F.	253
1	Structure's Demolition Cost	Explosive/implosive dml, no disposal, conc bldg	0241 1615 0100	0.29	C.F.						42,012					C.F.		42,012	C.F.	12,183
1	Structure's Demolition Cost	150 ton cap., truck mounted crane	0154 3360 2760	3027	\$/day									1		\$/day		1	\$/day	3,027
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						12					C.Y.		12	C.Y.	12
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 20 c y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						12					C.Y.		12	C.Y.	47
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			15,522
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1,556					C.Y.		1,556	C.Y.	1,540
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						1,556					C.Y.		1,556	C.Y.	2,599
	Disposal Costs																			
	Subtotal																			4,139
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			0
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$19,661

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	102 Lunch Room																			
	Deduct 50% no interior walls																			
3	Structure's Demolition Cost	Building dml, no disposal. Mixed types bldg	0241 1613 0100	0.31	C.F.						4,410					C.F.		4,410	C.F.	1,367
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,367
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						14					C.Y.		14	C.Y.	851
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						48					C.Y.		48	C.Y.	48
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rearbot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						48					C.Y.		48	C.Y.	80
	Disposal Costs																			
	Subtotal																			978
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,345

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT.

(3) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	103 Pump House																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	2										L.F.		2	L.F.	2
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						2					C.Y.		2	C.Y.	2
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						2					C.Y.		2	C.Y.	19
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			24
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						1.6					C.Y.		1.6	C.Y.	97
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1.6					C.Y.		1.6	C.Y.	2
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						1.6					C.Y.		1.6	C.Y.	3
	Disposal Costs																			
	Subtotal																			101
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$125

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	104 Water Tank																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	79										L.F.		79	L.F.	96
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						2					C.Y.		2	C.Y.	2
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						2					C.Y.		2	C.Y.	19
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			117
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						4					C.Y.		4	C.Y.	243
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4					C.Y.		4	C.Y.	4
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						4					C.Y.		4	C.Y.	7
	Disposal Costs																			
	Subtotal																			254
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$370

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	105 Diesel Fuel Tank																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
1	Dismantling Cost	Removal of ugnd stor tk, 9000gal to 12,000gal tank	0265 1030 1029	1155	Ea.										1	Ea.		1	Ea.	1,155
	Equipment's Vol. Demolished																			
	Loading Costs																			
1	Transport Costs	Removal of ugnd stor tk, haul to certified salv dump, 9000gal-12000gal tank	0265 1030 1029	1155	Ea.										1	Ea.		1	Ea.	1,155
	Disposal Costs																			
	Subtotal																			2,310
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						4					C.Y.		4	C.Y.	243
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4					C.Y.		4	C.Y.	4
1	Transportation Cost	Hauling, off hwy haulers, 60 CY rear/bot dump, 1000' RT, 3.6 lds/hr	3123 2318 2130	1.67	C.Y.						4					C.Y.		4	C.Y.	7
	Disposal Costs																			
	Subtotal																			254
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,564

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	106 C-111 Cover																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	257										L.F.		257	L.F.	311
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						15					C.Y.		15	C.Y.	15
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 2 MI RT, 2.6 lds/hr	3123 2319 0100	7.70	C.Y.						15					C.Y.		15	C.Y.	116
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			441
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						12					C.Y.		12	C.Y.	747
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						12					C.Y.		12	C.Y.	12
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2319 1220	3.92	C.Y.						12					C.Y.		12	C.Y.	48
	Disposal Costs																			
	Subtotal																			808
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,249

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	107 Switch Gear #3																			
	Deduct 50% no interior walls																			
3	Structure's Demolition Cost	Building dml, no disposal, Mixed types bldg	0241 1613 0100	0.31	C.F.						5,200					C.F.		5,200	C.F.	1,612
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			1,612
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						10					C.Y.		10	C.Y.	608
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						43					C.Y.		43	C.Y.	43
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 3 MI RT, 1.7 lds/hr	3123 2318 1220	3.92	C.Y.						43					C.Y.		43	C.Y.	169
	Disposal Costs																			
	Subtotal																			819
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$2,431

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.

(2) Concrete demolition unit cost based on a January 2009 phone quote from Strong Brothers Trucking, South Jordan, UT.

(3) 2008 RSMeans Building Construction Cost Data, 66th ed. Price adjusted by 1.3% to be equivalent to 2007 RSMeans Heavy Construction Cost Data, 21st ed.

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	108 B-8 Overland Belt																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	2,082										L.F.		2,082	L.F.	2,519
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						377					C.Y.		377	C.Y.	343
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						377					C.Y.		377	C.Y.	3,619
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			6,481
	Equipment's Disposal Cost																			
1	Dismantling Cost	Circular saw rental	0154 3340 6100	4.60	\$/day									5		\$/day		5	\$/day	23
	Equipment's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						50					C.Y.		50	C.Y.	46
1	Transport Costs	Hauling, LCY, no loading, 16.5 c.y dump trailer, 20 mi RT, 4 lds/hr	3123 2318 1130	15.80	C.Y.						50					C.Y.		50	C.Y.	790
1	Additional Transport Costs	Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile	66										Mile		66	Mile	87
1	Disposal Costs	Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90.00	Ton							29				Ton		29	Ton	2,580
	Subtotal																			3,526
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$10,007

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	109 Hopper																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	123										L.F.		123	L.F.	149
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						3					C.Y.		3	C.Y.	3
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 2 MI RT, 2.6 lds/hr	3123 2318 0100	7.70	C.Y.						3					C.Y.		3	C.Y.	22
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			174
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$174

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	110 Transfer Tower																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, hand burning, including prep, steel to 1/2" thick	0241 1927 0020	1.21	L.F.	240										L.F.		240	L.F.	290
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						995					C.Y.		995	C.Y.	985
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 2 MI RT, 2.6 lds/hr	3123 2318 0100	7.70	C.Y.						995					C.Y.		995	C.Y.	7,662
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			8,937
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$8,937

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	111 Stacker Reclaimer																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	3,202										L.F.		3,202	L.F.	3,874
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						1,500					C.Y.		1,500	C.Y.	1,365
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						1,500					C.Y.		1,500	C.Y.	14,400
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			19,639
	Equipment's Disposal Cost																			
1	Dismantling Cost	Circular saw rental	0154 3340 6100	4.60	\$/day										5	\$/day		5	\$/day	23
	Equipment's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 3 CY cap = 140 CY/hr	3123 1642 1601	0.91	C.Y.						88					C.Y.		88	C.Y.	80
1	Transport Costs	Hauling, LCY, no loading, 16.5 c.y dump trailer, 20 mi RT, 4 lds/hr	3123 2318 1130	15.80	C.Y.						88					C.Y.		88	C.Y.	1,390
1	Additional Transport Costs	Highway hauling beyond 20 miles, per loaded mile, minimum	3123 2318 4700	1.32	Mile	132										Mile		132	Mile	174
1	Disposal Costs	Dump charges, typical urban city, fees only, bldg constr materials	0241 1919 0100	90.00	Ton							40				Ton		40	Ton	3,600
1	Ripping	Ripping, trap rock, very hard, 460 HP dozer, adverse conditions	3123 1632 2100	8.30	C.Y.						11,051					C.Y.		11,051	C.Y.	91,723
	Subtotal																			96,991
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$116,630

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	112 Cap Magazine																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
1	Loading Costs	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						2					C.Y.		2	C.Y.	2
1	Transport Costs	Hauling, LCY, no loading, 6 c y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						2					C.Y.		2	C.Y.	19
	Disposal Costs																			
	Subtotal																			21
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$21

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	114 Detonator Magazine																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	26										L.F.		26	L.F.	31
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4					C.Y.		4	C.Y.	4
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						4					C.Y.		4	C.Y.	38
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			74
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			574

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	115 Anfo Bin																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Steel cutting, torch cutting, 1" thick	0241 1927 0020	1.21	L.F.	51										L.F.		51	L.F.	62
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
1	Loading Cost Steel	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4					C.Y.		4	C.Y.	4
1	Transportation Cost Steel Truck	Hauling, LCY, no loading, 6 c.y dump truck, 3 MI RT, 2.1 lds/hr	3123 2318 0150	9.60	C.Y.						4					C.Y.		4	C.Y.	38
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			104
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$104

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Removal of Chain Link Fences and Gates																			
	Deduct 50% no interior walls																			
1	Structure's Demolition Cost	Selective demo. chain link gate, 20' wide	0241 1362 0400	143	Ea										2	Ea.		2	Ea	286
1	Structure's Demolition Cost	Selective demo. chain link fence, 5' tall	0241 1362 0600	1.60	L.F.	4,000										L.F.		4,000	L.F.	6,400
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			6,686
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$6,686

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	Demolition of Concrete & Asphalt Roadways and Flatwork in Process Area																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml. conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						14,126					C.Y.		14,126	C.Y.	858,155
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						14,078					C.Y.		14,078	C.Y.	13,937
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			872,092
1	Concrete Demolition	Site demo, no hauling, pavement removal, bit, 4" to 6" thick	0241 1317 5050	7.15	S.Y.					14,767						S.Y.		14,767	S.Y.	105,584
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1,689					C.Y.		1,689	C.Y.	1,672
1	Transportation Cost	Hauling, LCY, no loading, 20 c.y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2316 1160	2.66	C.Y.						1,689					C.Y.		1,689	C.Y.	4,493
1	Ripping Cost	Ripping, shale, medium hard, 300 HP dozer, adverse conditions	3123 1632 2500	1.99	C.Y.						27,845					C.Y.		27,845	C.Y.	55,412
	Disposal Costs																			
	Subtotal																			167,160
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$1,039,252

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	North Access Road																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						1,458					C.Y.		1,458	C.Y.	88,574
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						1,458					C.Y.		1,458	C.Y.	1,443
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2318 1150	2.66	C.Y.						1,458					C.Y.		1,458	C.Y.	3,878
	Disposal Costs																			
	Subtotal																			93,895
1	Concrete Demolition	Site demo, no hauling, pavement removal, bit, 4" to 6" thick	0241 1317 5050	7.15	S.Y.					180						S.Y.		180	S.Y.	1,287
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						180					C.Y.		180	C.Y.	178
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2318 1150	2.66	C.Y.						180					C.Y.		180	C.Y.	479
1	Ripping Cost	Ripping, shale, medium hard, 300 HP dozer, adverse conditions	3123 1632 2500	1.99	C.Y.						4,222					C.Y.		4,222	C.Y.	8,402
	Disposal Costs																			
	Subtotal																			10,346
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$104,241

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

Ref.	Description	Materials	Means Reference Number	Unit Cost	Unit	Length	Width	Height	Diameter	Area	Volume	Weight	Density	Time	Number	Unit	Swell Factor	Quantity	Unit	Cost
	South Access Road																			
	Deduct 50% no interior walls																			
	Structure's Demolition Cost																			
	Structure's Vol. Demolished																			
	Rubble's Weight (exclude steel)																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Non Steel Truck																			
	Transportation Cost Non Steel Drive																			
	Disposal Cost Non Steel																			
	Steel's Weight																			
	Truck's Capacity																			
	Haulage																			
	Transportation Cost Steel Truck																			
	Transportation Cost Steel Truck Drive																			
	Disposal Cost Steel																			
	Subtotal																			
	Equipment's Disposal Cost																			
	Dismantling Cost																			
	Equipment's Vol. Demolished																			
	Loading Costs																			
	Transport Costs																			
	Disposal Costs																			
	Subtotal																			
2	Concrete Demolition	Site dml, conc, 7" to 24" thick, plain	See Note 2	60.75	C.Y.						4,444					C.Y.		4,444	C.Y.	269,973
	Demolition Cost																			
	Concrete's Vol. Demolished																			
1	Loading Cost	Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.						4,444					C.Y.		4,444	C.Y.	4,400
1	Transportation Cost	Hauling, LCY, no loading, 20 c y dump trailer, 1 MI RT, 2.5 lds/hr	3123 2318 1150	2.66	C.Y.						4,444					C.Y.		4,444	C.Y.	11,821
1	Ripping Cost	Ripping, shale, medium hard, 300 HP dozer, adverse conditions	3123 1632 2500	1.99	C.Y.						10,667					C.Y.		10,667	C.Y.	21,227
	Disposal Costs																			
	Subtotal																			307,421
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Concrete Demolition																			
	Demolition Cost																			
	Concrete's Vol. Demolished																			
	Loading Cost																			
	Transportation Cost																			
	Disposal Costs																			
	Subtotal																			
	Total																			\$307,421

(1) 2007 RSMeans Heavy Construction Cost Data, 21st ed

(2) Concrete demolition unit cost based on a January 2008 phone quote from Strong Brothers Trucking, South Jordan, UT

	Equipment Cost	Hourly Operating Costs	Equipment Overhead	Operator's Hourly Wage Rate	Hourly Cost	Number of Men or Eq.	Total Eq. & Lab. Costs	Units	Quantity	Units	Production Rate	Units	Equip. + Labor Time/Dis.	Units	Cost
Reclamation Channels															460,928
Pond #1															240,480
Pond #2															6,336
Pond #3															2,643
Pond #4															1,560
Pond #5															406
Pond #6															6,559
Pond #7															13,150
Road Under Crusher Conveyor Belt															11,379
Exploration Roads SE of Quarry (Burma Road)															68,425
Remaining Branch Road to Process Facilities															2,681
Road to Quartzite Quarry															32,138
Road to Stacker/Reclaimer															11,379
SUBTOTAL EARTHWORK															858,064

Note: All ripping to be performed to a depth of at least 24 inches.

[illegible]

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Description	Number	Price	Unit
Excavating, bulk bank measure, FE loader, whl mtd, 5 CY cap = 185 CY/hr	3123 1642 1650	0.99	C.Y.
Fill, spread fill, with dozer 300 h.p 300' haul	3123 2317 0190	3.46	C.Y.
Hauling, LCY, no loading, 6 c.y dump truck, 1/2 MI RT, 4.1 lds/hr	3123 2318 0030	4.81	C.Y.
Seed Mix	See Note 2	210.00	acre
Hand broadcast seeding	See Note 3	125.00	acre
Hydroseeding	See Note 3	1,200.00	acre
Composted manure, 5t/ac, applied to 1/4 reveg area	See Note 3	18.00	ton
Spreading composted manure	See Note 3	2,500.00	acre
Composted manure, 5t/ac, applied to entire area	See Note 3	18.00	ton
Composted manure @ 65#/cyd soil	See Note 3	18.00	ton
Fill, spread fill, with dozer 300 h.p 300' haul	See Note 3	2,500.00	acre
Site cleanup	See Note 4	12.00	acre

Notes

- (1) 2007 RSMeans Heavy Construction Cost Data, 21st ed.
- (2) Based on a January 2008 phone quote from Granite Seed, Lehi, UT.
- (3) Based on a January 2008 phone quote from WRR Industries, Ogden, UT.
- (4) Assumes 1 laborer @\$15/hr can cover 10 acres per 8 hour shift

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